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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/845,648	04/30/2001	Menachem Levanoni	YOR920010396US1	2712
7590	01/09/2004		EXAMINER	PHAM, HUNG Q
Stephen C. Kaufman Intellectual Property Law Dept. IBM Corporation P.O. Box 218 Yorktown Heights, NY 10598			ART UNIT	PAPER NUMBER
			2172	6
			DATE MAILED: 01/09/2004	

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/845,648	LEVANONI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	HUNG Q PHAM	2172	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 30 October 2003.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-12 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-12 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \*    c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.
- 13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
  - a) The translation of the foreign language provisional application has been received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ .
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .	6) <input type="checkbox"/> Other: _____ .

**DETAILED ACTION**

***Response to Arguments***

1. Applicants' arguments, see Amendment Under 37 C.F.R. § 1.111, filed 10/30/2003, with respect to the rejection(s) of claim(s) 1-10 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Temma et al., Elmasri et al., and Cragun et al.. The pending claims are 1-12, which includes two added new claims 11 and 12.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1-7 and 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Temma et al. [USP 4,947,322].**

Regarding to claims 1, 9 and 10, Temma teaches a method for planning goods layout. As shown in file 7 of FIG. 5 is the step of *providing a department store space-requirements database comprising a compendium of individual department store*

*space-requirements history.* As shown in file 4 of FIG. 3 is the step of providing *a department store space-availability database comprising a compendium of at least one of department store space management solutions, department store space information, and department store space diagnostics.* As shown in FIGS. 1 and 2, the *department store space-requirements database* and *department store space-availability database* are analyzed based on the basic rules stored in the knowledge base 14 as *a data mining technique*, the problem of how to optimize the sales efficiency of the goods is solved by a new layout of goods as *an output data stream* (Col. 3, line 51-Col. 5, line 23), or in other words, the basic rules, the new layout of goods indicates the step of *employing a data mining technique for interrogating a department store space-requirements and department store space-availability databases for generating an output data stream, said output data stream correlating department store space-requirements problem with department store space-availability solution.*

Regarding to claim 2, Temma teaches all the claimed subject matters as discussed in claim 1, Temma further discloses the step of *updating the department store space-requirements database* (Col. 5, lines 1-24).

Regarding to claim 3, Temma teaches all the claimed subject matters as discussed in claim 2, Temma further discloses the steps of *updating the department store space-requirements database comprises including the results of employing a data mining technique* (Col. 5, lines 1-24).

Regarding to claim 4, Temma teaches all the claimed subject matters as discussed in claim 1, Temma further discloses the step of *updating the department store-space availability database* (FIG. 3).

Regarding to claim 5, Temma teaches all the claimed subject matters as discussed in claim 4, Temma further discloses the step of *updating the department store-space-availability database comprises including the effects of employing a data mining technique on the department store space-requirements database* (Col. 5, lines 1-24).

Regarding to claim 6, Temma teaches all the claimed subject matters as discussed in claim 2, Temma further discloses the step of *refining an employed data mining technique in cognizance of pattern changes embedded in each database as a consequence of updating the department store space-requirements database* (Col. 5, lines 1-24).

Regarding to claim 7, Temma teaches all the claimed subject matters as discussed in claim 4, Temma further discloses the step of *refining an employed data mining technique in cognizance of pattern changes embedded in each database as a consequence of updating the department store space-availability database* (Col. 5, lines 1-24).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. **Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Temma et al. [USP 4,947,322] in view of Elmasri et al. [Fundamentals of Database Systems].**

Regarding to claim 8, Temma teaches all the claimed subject matters as discussed in claim 1, but fails to teach the step of *employing neural networks as the data mining technique*. Elmasri teaches neural networks could be employed as the data mining technique (Elmasri, page 856). It would have been obvious for one of ordinary

skill in the art at the time the invention was made to modify the Temma technique by employing neural networks for the rules in the knowledge base 14 in order to have a more user-friendly system.

**6. Claim 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Temma et al. [USP 4,947,322] in view of Elmasri et al. [Fundamentals of Database Systems] and Cragun et al. [USP 5,774,868].**

Regarding to claim 11, Temma and Elmasri teaches all the claimed subject matters as discussed in claim 8, but does not explicitly disclose *neural networks classify features of said department store-space requirements and features of said department store space availability*. Cragun teaches the technique of classifying the features of sale data (Col. 2, line 28-Col. 3, line 5). It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Temma and Elmasri system and method by using neural networks to classify features in order to speed up the process of arranging the goods in a store.

Regarding to claim 12, Temma, Elmasri and Cragun teaches all the claimed subject matters as discussed in claim 11, but does not explicitly disclose the step of *determining whether a match exist between a classification of features of said department store space-requirement determined to be a problem and a classification of features of said department store space-availability*. However, as taught by Temma, the rules to mine the

data is based on if and then rules (Temma, FIG. 9, 12 and 21). As taught by Elmasri, neural networks could be employed to mine the data in a large database. Cragun teaches the technique of classifying the feature. It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Temma, Elmasri and Cragun technique by classifying the features of if and then rules and matching by using a neural network in order to speed up the process of arranging the goods in a store.

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG Q PHAM whose telephone number is 703-605-4242. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN E BREENE can be reached on 703-305-9790. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Examiner Hung Pham  
December 29, 2003



SHAHID ALAM  
PRIMARY EXAMINER